

Grammatical and Mechanical Error Patterns in Investigative Reports of Criminology Students

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Abstract— This study examined the grammatical and mechanical error patterns in investigative reports written by third-year criminology students at North Eastern Mindanao State University – Cantilan Campus during the second semester of Academic Year 2025–2026. It specifically identified the morphological, syntactic, lexical, and mechanical errors present in students' spot and progress reports and determined the most frequently occurring category of errors. A descriptive quantitative research design was employed using error analysis to evaluate students' written outputs. The investigative reports were systematically analyzed, and frequency counts and percentages were used to determine the distribution of errors. Findings revealed that mechanical errors, particularly punctuation and capitalization, were the most frequently occurring errors, followed by lexical errors related to word choice and word form, while morphological and syntactic errors occurred less frequently. The results suggest that students experienced greater difficulty in applying formal writing conventions and selecting appropriate discipline-specific vocabulary rather than in constructing basic grammatical structures. The study concludes that targeted instructional interventions are needed to improve students' writing accuracy, especially in mechanics and vocabulary use, and recommends the integration of contextualized and ESP-based writing activities to enhance competence in producing clear and professional investigative reports.



Keywords— error analysis, grammatical errors, investigative reports, mechanical errors, writing competence.

I. INTRODUCTION

The competence of criminology students in investigative report writing is a critical requirement in their academic and professional formation, as it reflects their ability to document factual events with clarity, accuracy, and adherence to formal writing conventions. Investigative reports function as official documents in law enforcement and legal contexts; thus, they must be written with precision, objectivity, and linguistic correctness. However, despite the importance of this skill, many criminology students continue to experience difficulties in grammatical accuracy and mechanical correctness, which negatively affect the clarity, reliability, and professionalism of their

written outputs. This study examines the grammatical and mechanical error patterns in the investigative reports of criminology students, specifically identifying morphological, syntactic, lexical, and mechanical errors, and determining which category occurs most frequently. It

also examines the pedagogical implications of these error patterns for improving Technical English instruction in criminology education.

Writing is widely recognized as one of the most complex macro skills in language learning due to its integration of linguistic knowledge, cognitive processing, and discourse organization. Empirical studies consistently reveal that tertiary learners struggle with grammar,

vocabulary, sentence construction, and writing mechanics (Rosyada-AS et al., 2023; Salam & Nurnisa, 2021; Susanto, 2021; Ajaj, 2022; Surya, 2022). Mechanical errors such as punctuation and capitalization, along with lexical inaccuracies in word choice, remain persistent across academic writing contexts (Chen et al., 2024). In the Philippine setting, Canisi and Lambenicio (2023) found that criminology students demonstrate only moderate writing performance, with weaknesses particularly evident in content development and organization despite formal instruction. These findings suggest that writing difficulties persist not only due to linguistic limitations but also due to insufficient exposure to discipline-specific and context-based writing practices.

Investigative report writing is a highly specialized form of professional communication that requires strict adherence to procedural accuracy and linguistic precision. Eerland and Charldorp (2022) emphasize that the reliability of investigative reports is essential for their credibility in legal evaluation and judicial processes. Similarly, Pazarena, Kessler, and Watroba (2022) note that crime scene reports must follow structured formats that ensure clarity, completeness, and consistency in presenting factual information. However, despite these established conventions, Ajero (2025) reports that police and investigative reports still contain lexical, morphological, and syntactical errors that compromise clarity and meaning. These challenges highlight the gap between theoretical knowledge of report writing and actual student performance in producing accurate investigative documentation.

Writing performance is further shaped by linguistic, cognitive, and instructional factors. Mathew (2023) defines grammar as a structured system governing sentence formation and meaning construction, while Doner (2025) explains that grammatical competence develops through exposure and usage rather than rule memorization alone. Shivam (2022) and Long (2025) further emphasize that grammar plays a crucial role in reducing ambiguity and ensuring clarity in written communication. Alongside grammar, mechanics such as spelling, punctuation, and capitalization are essential in ensuring readability and professionalism in written texts (Moxley, 2023). Empirical studies also show that writing errors occur across multiple linguistic levels due to interlingual transfer, intralingual interference, and limited instructional feedback (Wang et al., 2025). In the Philippine context, Demi and Payot (2022) found recurring grammatical and mechanical errors among criminology students, reinforcing the persistence of writing difficulties in local tertiary education.

Despite the abundance of studies on writing errors and academic writing performance, a critical gap remains in

the literature. Most existing research focuses on general academic writing or ESL learners without sufficiently examining discipline-specific writing, particularly investigative report writing in criminology. Moreover, while error studies often identify common linguistic problems, they rarely translate findings into structured, data-driven pedagogical implications for Technical English instruction. There is also limited integration of grammatical, lexical, and mechanical error analysis within a single framework that directly informs investigative writing pedagogy. This gap suggests the need for a more context-sensitive and discipline-based analysis of student writing performance.

In response to these gaps, this study analyzes the grammatical and mechanical error patterns in the investigative reports of third-year criminology students at North Eastern Mindanao State University – Cantilan Campus. It specifically examines morphological, syntactic, lexical, and mechanical errors in students' spot and progress reports and identifies the most frequently occurring error category. Unlike previous studies that treat writing errors as isolated linguistic issues, this research integrates error analysis within the context of investigative report writing as a professional genre, thereby providing a more applied and discipline-specific understanding of student writing performance.

The major contribution of this study lies in its development of an empirically grounded basis for improving criminology writing instruction through error-pattern profiling. It extends existing literature by situating grammatical and mechanical error analysis within the specialized domain of investigative reporting, an area that remains underexplored in both local and international studies. Furthermore, the findings are expected to inform the design of contextualized, ESP-based instructional materials that directly address the actual writing deficiencies of criminology students. In doing so, this study bridges the gap between theoretical error analysis and practical pedagogical application, offering a more targeted approach to enhancing writing competence in law enforcement education.

The findings of this study are expected to assist English instructors, criminology faculty, curriculum designers, and academic administrators in designing more responsive writing instruction. By identifying specific error patterns and their frequencies, this research contributes to the development of more structured, contextualized, and discipline-oriented writing interventions. Consequently, it supports the enhancement of criminology students' writing competence, particularly in producing clear, accurate, and professionally acceptable investigative reports essential for their future roles in law enforcement and related fields.

II. METHODOLOGY

2.1 Research Design

The study employed a descriptive quantitative research design, a research methodology that involves the systematic collection and statistical analysis of numerical data to describe patterns and trends within a given phenomenon (Creswell & Creswell, 2022). Specifically, the study focused on systematically examining the grammatical and mechanical error patterns found in the investigative reports of criminology students through measurable and observable linguistic data. Guided by an error analysis framework, the study identified, categorized, and quantified recurring errors in students' written outputs, particularly in terms of frequency and distribution across morphological, syntactic, lexical, and mechanical domains. This design was considered appropriate because it allowed for an objective and structured examination of writing errors without manipulating variables, thereby providing a clear descriptive account of students' linguistic performance.

2.2 Research Respondents

The respondents of the study were third-year criminology students enrolled in CDI 5 Technical English 1 (Investigative Report Writing and Presentation) during the second semester of Academic Year 2025–2026, with a total population of 508 students across 12 sections. They were selected because they are at a critical stage where investigative report writing is a core competency in their training. A sample of 219 respondents was determined using Cochran's formula, and stratified random sampling was employed to ensure proportional representation of all sections. This method is appropriate as it enhances representativeness and sampling precision by organizing the population into homogeneous strata before random selection; as Parsons (2017) explains, stratified sampling improves estimator accuracy and reduces sampling error by ensuring similarity within each stratum. The 219 respondents served as the quantitative sample for the systematic identification, classification, and quantification of grammatical and mechanical error patterns in their investigative report outputs.

2.3 Research Instrument

The primary sources of data in this study consisted of the spot reports and progress reports prepared by the respondents. These reports were produced as part of the students' investigative writing activities and served as authentic discipline-specific writing samples for analysis. The study analyzed two types of investigative reports: spot reports, which required concise presentation of incident details, and progress reports, which contained detailed narrative descriptions and chronological documentation of

investigative developments. The study employed a modified linguistic error analysis framework adapted from established second language acquisition error taxonomy (Dulay et al., 1982), categorizing errors into morphological, syntactic, lexical, and mechanical domains.

To ensure the validity and reliability of the analysis, the coding framework and error classifications were subjected to expert validation by instructors of English language and criminology-related writing. The basis for coding errors was anchored on observable linguistic deviations from standard grammatical rules, sentence structure conventions, vocabulary usage, and writing mechanics found in the students' investigative reports. Each report was carefully examined and coded according to the established classifications. Frequency counts and percentage distributions were then used to determine the occurrence and prevalence of grammatical and mechanical error patterns in the investigative reports.

2.4 Statistical Treatment

Frequency counts and percentages were used to systematically determine the distribution and occurrence of grammatical and mechanical errors in the students' investigative reports. Frequency counts involved tallying the number of occurrences of each error type across all respondents' written outputs, allowing the researcher to identify which error categories were most and least prevalent. These raw frequencies were then converted into percentages by dividing the frequency of each error type by the total number of errors and multiplying the result by 100, enabling clearer comparison of error distribution across categories. This approach is widely used in descriptive quantitative research because it provides a clear and interpretable summary of categorical data, allowing patterns and trends to be easily identified (Lund, 2021; Dong, 2023). Recent methodological studies also emphasize that frequency and percentage analysis remain among the most commonly used statistical tools in quantitative descriptive research due to their simplicity, clarity, and effectiveness in summarizing survey and textual data (Loreto-Gómez & Fernández-Sánchez, 2021).

III. RESULTS AND DISCUSSION

Table 1 presents the grammatical and mechanical error patterns identified in the investigative reports of third-year criminology students. The table shows the frequency counts and percentages of errors categorized into morphological, syntactic, lexical, and mechanical classifications. Under each category, specific error types were identified and analyzed to determine the extent of students' difficulties in investigative report writing. The total row indicates the overall number of errors committed

across all categories, which served as the basis for performance. comparison and interpretation of the students' writing

Table 1: Category-Wise Analysis of Total Errors

Category	Types	Frequency	Percentage	Description
Morphological Errors	Verb Tense	342	13.27%	High
	Subject Verb agreement (verb errors)	71	2.76%	Low
	Voice of the verb	46	1.79%	Very Low
Syntactic Errors	Word Order	214	8.31%	Moderate
	Sentence Fragments	279	10.83%	High
	Run-on Sentences	162	6.29%	Moderate
	Word choice/Word Form	1019	39.54%	Very High
Lexical Errors	Preposition Errors	394	15.29%	High
	Pronouns Errors	49	1.90%	Very Low
Total		2576	100%	
Mechanical Errors	Spelling	443	10.13%	High
	Punctuations	2095	47.90%	Very High
	Capitalization	1836	41.98%	Very High
Total		4,374	100%	

As shown in Table 1, punctuation errors obtained the highest frequency among all identified mechanical errors, accounting for 47.90% of the total mechanical errors. This indicates that students experience considerable difficulty in applying proper punctuation marks and identifying correct sentence boundaries in investigative writing. Since investigative reports require accuracy, clarity, and organization of details, incorrect punctuation affects the readability and professionalism of students' written outputs. Capitalization errors also appeared frequently, comprising 41.98% of the total mechanical errors. This suggests limited mastery of formal writing conventions, particularly in the use of proper nouns, official terminologies, abbreviations, and sentence beginnings commonly observed in investigative documentation. Spelling errors, although lower than punctuation and capitalization, still recorded 10.13%, indicating weaknesses in proofreading and editing skills.

Among lexical errors, word choice and word form recorded the highest frequency, representing 39.54% of the total lexical and grammatical errors. This finding implies that students struggle in selecting precise and discipline-appropriate vocabulary when constructing investigative narratives. In criminology writing, inaccurate word choice may alter the meaning of information being conveyed, thereby affecting the clarity and reliability of reports. Preposition errors also appeared frequently, accounting for

15.29%, which indicates difficulties in using appropriate grammatical connectors and expressions in report writing. These findings support the claim of Mustafa et al. (2022) that tertiary-level students often encounter difficulties in vocabulary precision and writing mechanics despite prior grammar instruction.

In terms of syntactic and morphological errors, verb tense errors obtained 13.27%, while sentence fragments accounted for 10.83%, indicating that students still encounter challenges in maintaining consistency and completeness in sentence construction. Word order errors (8.31%) and run-on sentences (6.29%) appeared at moderate levels, suggesting partial control of sentence organization. In contrast, subject-verb agreement errors (2.76%), pronoun errors (1.90%), and voice of the verb errors (1.79%) obtained the lowest frequencies. This may indicate that students possess relatively better familiarity with basic grammatical structures commonly used in investigative report writing. Repeated exposure to standard sentence patterns in investigative documentation may have contributed to the lower occurrence of these errors.

Overall, the findings reveal that mechanical and lexical errors dominate the students' investigative reports, particularly punctuation, capitalization, and word choice/word form errors. This indicates that criminology students experience greater difficulty in applying formal

writing conventions and vocabulary precision than in constructing basic grammatical structures. The results further imply that students may understand the content they intend to communicate but encounter challenges in presenting information accurately and professionally in written form. These findings support the observations of Yuliah et al. (2019), who emphasized that professional writing requires mastery of discipline-specific vocabulary and adherence to formal writing conventions.

IV. CONCLUSION AND RECOMMENDATIONS

This study contributes to the understanding of grammatical and mechanical error patterns in the investigative reports of criminology students by identifying the specific areas in writing where difficulties frequently occur. The findings revealed that mechanical errors, particularly in punctuation and capitalization, along with lexical problems involving word choice and word form, remain major challenges in investigative report writing. These results demonstrate the importance of strengthening writing instruction in criminology education, especially in areas requiring precision, clarity, and adherence to professional writing conventions. One advantage of the study is its systematic use of error analysis, which allowed the classification and quantification of recurring linguistic inaccuracies in authentic student outputs. However, the study is limited to third-year criminology students from a single institution and focused only on written investigative reports, which may limit the generalizability of the findings to other academic contexts or disciplines. Despite these limitations, the study may serve as a basis for developing ESP-based instructional materials, contextualized writing activities, and intervention programs aimed at improving investigative report writing skills among criminology students. Future studies may further explore intervention strategies, comparative analyses across institutions, or additional linguistic features affecting professional writing performance.

REFERENCES

- [1] Ajaj, M. A. (2022). Grammatical errors in academic writing among EFL learners. *International Journal of Language Education*, 6(2), 45–58.
- [2] Ajero, O. (2025, April 17). Linguistic deviations in police investigative report. *International Journal of Research and Innovation in Social Science*. Retrieved from <https://rsisinternational.org/journals/ijriss/articles/linguistic-deviations-in-police-investigative-report/>
- [3] Canisi, J., & Lambencio, G. (2023). Level of writing competence and conventional errors of students. *Zenodo*. <http://dx.doi.org/10.5281/zenodo.7530043>
- [4] Creswell, J. W., & Creswell, J. D. (2022). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE Publications.
- [5] Demi, M., & Payot, J. (2022). An error analysis of criminology students' texts, 7(1), 1–32. Retrieved from https://www.researchgate.net/publication/367271629_An_Error_Analysis_of_Criminology_Students
- [6] Doner, J. (2025, April 30). What is a grammar? University of Manitoba. Retrieved from <https://pressbooks.openedmb.ca/wordandsentencestructures/chapter/what-is-a-grammar/>
- [7] Dong, Y. (2023). Descriptive statistics and its applications. *Highlights in Science, Engineering and Technology*, 47, 16–23. <http://dx.doi.org/10.54097/hset.v47i.8159>
- [8] Dulay, H., Burt, M., & Krashen, S. (1983). Language two. *The Modern Language Journal*, 67(3), 273. <http://dx.doi.org/10.2307/327086>
- [9] Eerland, A., & Charldorp, T. (2022). The influence of police reporting styles on the processing of crime-related information. *Frontiers in Communication*, 7. <http://dx.doi.org/10.3389/fcomm.2022.816461>
- [10] Loreto-Gómez, C., & Fernández-Sánchez, L. (2021). Use of digital technology in teaching: Analysis of results using basic descriptive statistics and categorical principal components. *American Journal of Educational Research*, 9(5), 278–285. <http://dx.doi.org/10.12691/education-9-5-5>
- [11] Long, B. (2025, January 29). What is grammar and why does it matter? Hemingway App. Retrieved from <https://hemingwayapp.com/articles/grammar-punctuation/what-is-grammar>
- [12] Lund, T. (2021). Research problems and hypotheses in empirical research. *Scandinavian Journal of Educational Research*, 66(7), 1183–1193. <http://dx.doi.org/10.1080/00313831.2021.1982765>
- [13] Mathew, A. (2023, February 16). Definition of English grammar: The importance of teaching English grammar. ResearchGate. Retrieved from https://www.researchgate.net/publication/374752846_Definition_Of_English_Grammar_The_Importance_Of_Teaching_English_Grammar
- [14] Moxley, J. (2023, July 23). Mechanics rules for written language. Writing Commons. Retrieved from <https://writingcommons.org/section/grammar/mechanics/>
- [15] Mustafa, A., Noor Arbab, A., & Ahmed El Sayed, A. (2022). Difficulties in academic writing in English as a second/foreign language from the perspective of undergraduate students in higher education institutions in Oman. *Arab World English Journal*, 13(3), 41–53. <http://dx.doi.org/10.24093/awej/vol13no3.3>
- [16] Parodi, G. (2015). Variation across university genres in seven disciplines. *International Journal of Corpus Linguistics*, 20(4), 469–499. <http://dx.doi.org/10.1075/ijcl.20.4.03par>
- [17] Parsons, V. L. (2017). Stratified sampling. *Wiley StatsRef: Statistics Reference Online*, 1–11. <http://dx.doi.org/10.1002/9781118445112.stat05999.pub2>

- [18] Pazarena, L., Kessler, M., & Watroba, A. (2022). Report writing for crime scene investigators. CRC Press. <http://dx.doi.org/10.4324/9780429343162>
- [19] Rosyada-AS, A., & Apoko, T. W. (2023). Investigating English vocabulary difficulties and its learning strategies of lower secondary school students. *Journal of Languages and Language Teaching*, 11(3), 489. <http://dx.doi.org/10.33394/joltt.v11i3.8404>
- [20] Salam, U., & Nurnisa. (2021). Students' difficulties in learning vocabularies. *DOAJ: Directory of Open Access Journals*. <http://dx.doi.org/10.32502/ecj.v5i1.3327>
- [21] Shivam, K. (2022, October 10). The importance of grammar in English language. 21K School Philippines. Retrieved from <https://www.21kschool.com/ph/blog/the-importance-of-grammar-in-english-language/>
- [22] Surya, C. (2022). Students' difficulties in writing definition paragraph at the third semester students of English language education study program of STKIP Nias Selatan. *Faguru: Jurnal Ilmiah Mahasiswa Keguruan*, 1(1), 1–9. <http://dx.doi.org/10.57094/faguru.v1i1.496>
- [23] Susanto, H. (2021). A study on students' difficulties in learning vocabulary. *Journey: Journal of English Language and Pedagogy*, 4(2), 46–50. <http://dx.doi.org/10.33503/journey.v4i2.1413>
- [24] Wang, J., Kim, Y.-S. G., Lam, J. H. Y., & Leachman, M. A. (2025). A meta-analysis of relationships between syntactic features and writing performance and how the relationships vary by student characteristics and measurement features. *Assessing Writing*, 63, 100909. <http://dx.doi.org/10.1016/j.asw.2024.100909>
- [25] Yuliah, S., Widiastuti, A., & Meida, G. R. (2019). The grammatical and mechanical errors of students in essay writing. *Jurnal Bahasa Inggris Terapan*, 5(2), 61–75. <http://dx.doi.org/10.35313/jbit.v5i2.1763>